

Quality and Productivity Commission
33rd Annual Productivity and Quality Awards Program
"Empowering Innovative Solutions"

2019 APPLICATION

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):

NAME OF PROJECT: PROCEDURE SERVICE PARACENTESIS REFERRAL PROGRAM

DATE OF IMPLEMENTATION/ADOPTION: MAY 1, 2017

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2018)

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes No



EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

1 Ascites requiring therapeutic paracentesis is a common complication of liver cirrhosis. In
 2 many institutions, repeat outpatient drainages are performed by subspecialty Internal
 3 Medicine providers. Due to the limited resources within Los Angeles County, patients
 4 almost exclusively present to the Emergency Department when repeat drainage
 5 becomes necessary. The Medicine Procedure Service was initially established in 2016
 6 to improve operator consistency and to reduce procedure-related complications while
 7 performing inpatient bedside procedures. In May 2017, the service was expanded to
 8 include outpatient referrals, a majority of which have come from the Emergency
 9 Department (ED). Since the initiation of outpatient referrals for paracentesis, the number
 10 of repeat therapeutic paracenteses performed in the ED has decreased by 31.6%. This
 11 reduction in resource utilization greatly benefits the county by improving overcrowding
 12 and wait times in the ED, reducing potential complications in patients who wait too long
 13 before presenting to the ED (renal failure, SBP, etc). Additionally, the initiation of
 14 outpatient referrals for therapeutic paracentesis from the ED resulted in an annual cost
 15 savings of \$94,395.

BENEFITS TO THE COUNTY

(1) ACTUAL/ESTIMATED ANNUAL COST AVOIDANCE	(2) ACTUAL/ESTIMATED ANNUAL COST SAVINGS	(3) ACTUAL/ESTIMATED ANNUAL REVENUE	(1) + (2) + (3) = TOTAL ANNUAL ACTUAL/ESTIMATED BENEFIT	SERVICE ENHANCEMENT PROJECT
\$	\$94,395	\$	\$ 94,395	<input type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Department of Medicine, Division of Pulmonary & Critical Care Olive View-UCLA Medical Center 14445 OLIVE VIEW DRIVE SYLMAR, CA 91342		TELEPHONE NUMBER (747) 210-3205
PROGRAM MANAGER'S NAME Vincent Chan, MD		TELEPHONE NUMBER (747) 210-3813 EMAIL vchan2@dhs.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Connie Salgado-Sanchez 	DATE 6/25/19	TELEPHONE NUMBER 213-288-8483 EMAIL cosanchez@dhs.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Christina R. Ghaly, M.D. 	DATE 6/25/19	TELEPHONE NUMBER 213-288-8483

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1st FACT SHEET – LIMITED UP TO 3 PAGES ONLY: Describe the **challenge(s), solution(s), and benefit(s)** of the project to the County. What quality and/or productivity-related outcome(s) has the project achieved? Provide measures of success and specify assessment time frame. Use Arial 12 point font.

Ascites requiring therapeutic paracentesis is a common complication of liver cirrhosis, which affects nearly 650 thousand individuals in the United States. Most patients present to the Emergency Department for their first occurrence of ascites requiring drainage. In many institutions, after their initial encounter, patients are often referred to outpatient clinics, should they require a repeat procedure. These routine repeat procedures are usually performed by subspecialty Internal Medicine providers.

In Los Angeles County, there are limited resources for providing outpatient services to patients requiring repeat therapeutic paracentesis. As a result, patients represent to the Emergency Department when a repeat drainage becomes necessary. In 2018, 1015 documented paracenteses were performed by Emergency Medicine physicians across LA County. These encounters result in overcrowding and increased wait times in the Emergency Department (ED), potential complications to patients who wait too long before presenting to the ED including renal failure, bowel obstruction, and spontaneous bacterial peritonitis, and increased potential for procedure-related complications. Additionally, the average cost of an ED visit within LA County is approximately \$4,620 while the average cost of an outpatient visit is approximately \$1,575, resulting in significant potential for cost savings.

The Medicine Procedure Service was established in 2016 at Olive View-UCLA Medical Center (OVMC) in an effort to improve operator consistency and to reduce procedure-related complications while performing inpatient procedures. The Procedure Service is staffed by the Division of Pulmonary & Critical Care and consists of one attending proceduralist and one dedicated registered nurse. In May 2017, the service was expanded to include outpatient procedures, and in August 2017, a Message Pool was created to facilitate referrals from the Department of Emergency Medicine. Paracentesis data from the OVMC ED was collected from January 2017 to December 2018, with special attention given to repeat procedures performed during the time interval.

From 2017 to 2018, the number of repeat paracenteses was reduced by 31.6% (see Table 1). This is associated with a 20% reduction in total paracenteses performed performed by Emergency Department physicians. There was no significant change in total unique patients presenting to the ED for symptomatic ascites, further highlighting the reduction in repeat procedures. This reduction translates to an estimated cost savings of \$3,045 per patient visit and an estimated total savings of

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\$94,395 in 2018.

Table 1: Initial results

	2017	2018
Total paracenteses performed by ED	190	152
Total repeat paracenteses performed by ED	98	67
1st repeat paracentesis	18	20
≥ 2nd repeat paracentesis	81	47
Total unique patients	100	98
Unique patients receiving repeat paracentesis	44	45

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Linkage to the County Strategic Plan – 1 page only. Which County Strategic Plan goal(s) does this project address? Explain how. Use Arial 12 point font.

This project potentially addresses a few goals within the County Strategic Plan. The primary goal involves Strategy I.2.2, which streamlines access to integrated health services. The initiation of outpatient procedure services aims to improve patient access to routine follow-up care and to relieve overcrowding and utilization of the Emergency Department. This will further improve the relationship between patients and their providers, as well as improve communication between the Department of Medicine and the Department of Emergency Medicine in managing a highly prevalent disease.

This project also addresses Strategy III.3.2, which aims to manage and maximize county assets. With an estimated cost savings of \$94,395, we aim to better utilize our county’s resources towards providing high quality medical care to more patients as efficiently and as effectively as possible.

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COST AVOIDANCE, COST SAVINGS, AND REVENUE GENERATED (ESTIMATED BENEFITS TO THE COUNTY): If you are claiming cost benefits, include a calculation on this page. Please indicate whether these benefits apply in total or on a per unit basis, e.g., per capita, per transaction, per case, etc. You must include an explanation of the County cost savings, cost avoidance or new revenue that matches the numbers in the box. Remember to keep your supporting documentation. Use Arial 12 point font

Cost Avoidance: Costs that are eliminated or not incurred as a result of program outcomes. Please indicate whether these are costs to the County or to other entities.

Cost Savings: A reduction or lessening of expenditures as a result of program outcomes. Please indicate whether these were expenditures by the County or by other entities.

Revenue: Increases in existing revenue streams or new revenue sources to the County as a result of program outcomes.

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The average cost of a visit to the OVMC Emergency Department is approximately \$4,620 while the average cost of an outpatient visit is approximately \$1,575, resulting in an estimated savings of \$3,045 per patient visit.

From 2017 to 2018, the number of visits for repeat paracentesis fell from 98 to 67, a reduction of 31 patient visits. This results in a total cost savings of \$94,395 in 2018.